

① Convert to slope-intercept form ( $y = mx + b$ ) 2/10/10

(a)  $y = 4(x+2) - 4$   
 $4(0+2) - 4$

$y\text{-int} = 4$   
 $y = 4x + 4$

(b)  $y = 5 - 3(x-2)$   
 $5 - 3(0-2)$

$y\text{-int} = 11$   
 $y = -3x + 11$



(2) Given  $y = \frac{1}{2}(x-28) + 10$  with  $x = \text{total fat}$  and  $y = \text{saturated fat}$ ,

(a) Find the saturated fat in a burger with 32 total fat grams.

$$y = \frac{1}{2}(32 - 28) + 10$$

$$\frac{1}{2}(4) + 10$$

$$= 12 \text{ g sat. fat.}$$

(b) Find the total fat for a burger with 15g of saturated fat.

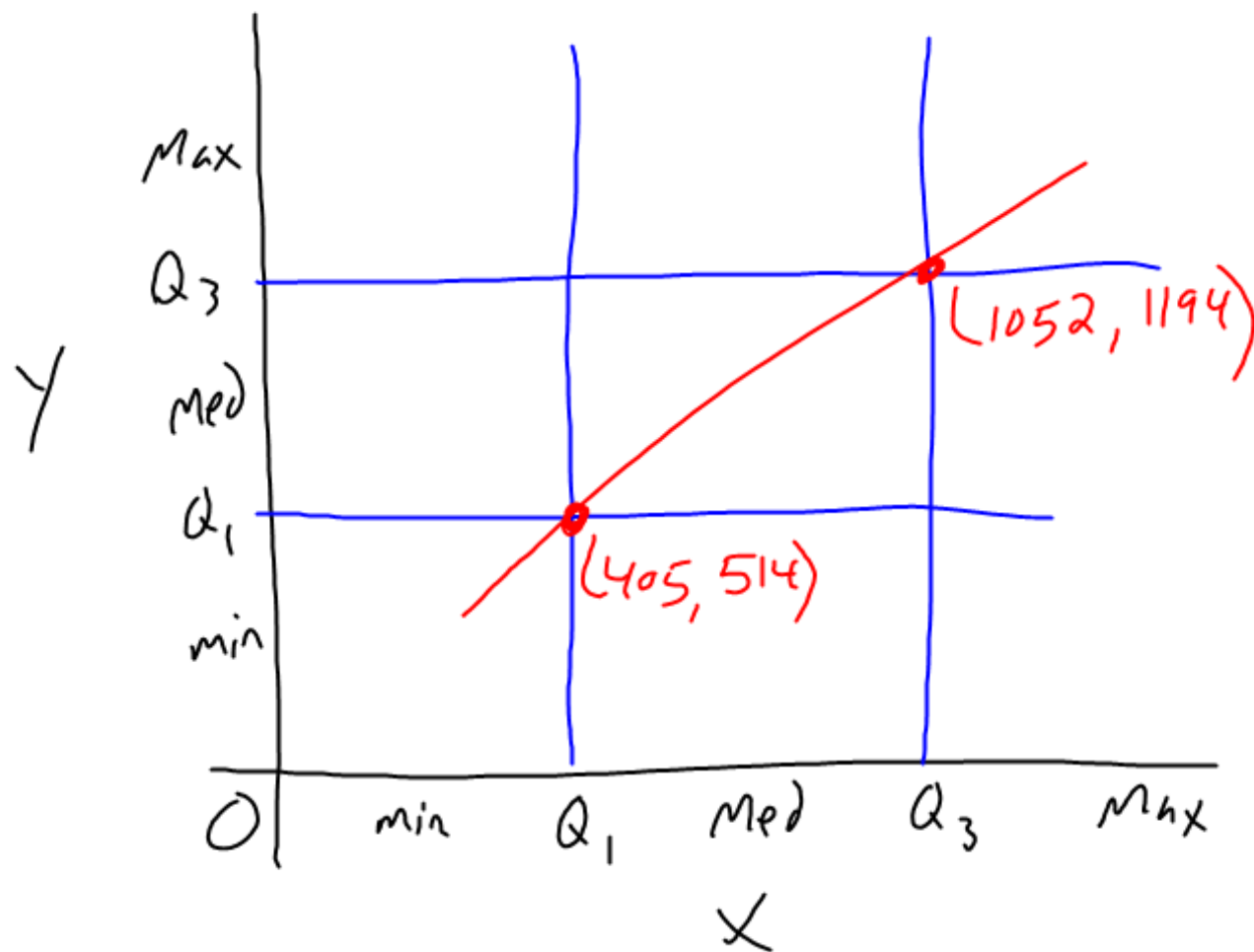
$$15 = \frac{1}{2}(x - 28) + 10$$

$x$	$15$
$-28$	$-10 = 5$
$\cdot \frac{1}{2}$	$\div \frac{1}{2} = 10$
$+10$	$+28 = 38$
$= 15$	$x = 38$

# Traveling Distances

From	To	Flying distance (mi)	Driving distance (mi)
Detroit, MI	Memphis, TN	623	756
St. Louis, MO	Minneapolis, MN	466	559
Dallas, TX	San Francisco, CA	1483	1765
Seattle, WA	Los Angeles, CA	959	1150
Washington, DC	Pittsburgh, PA	192	241
Philadelphia, PA	Indianapolis, IN	585	647
New Orleans, LA	Chicago, IL	833	947
Cleveland, OH	New York, NY	405	514
Birmingham, AL	Boston, MA	1052	1194
Denver, CO	Buffalo, NY	1370	1991
Kansas City, MO	Omaha, NE	166	204

Find 5 # summary of each, then find eq.



$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{1194 - 514}{1052 - 405}$$

$$m = 1.05$$

$$y = 1.05(x - 405) + 514$$

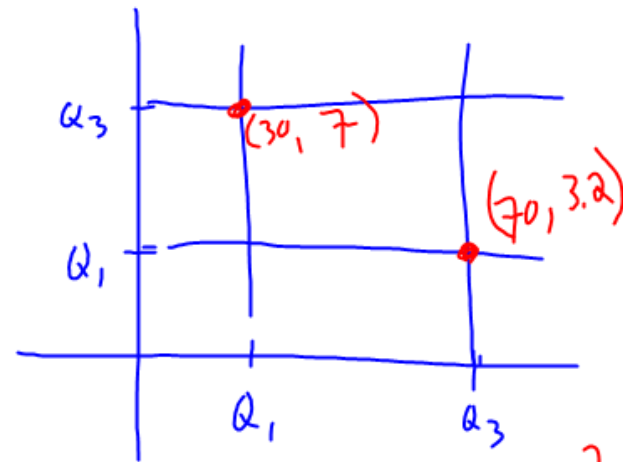
$$y = m(x - \underline{x_1}) + \underline{y_1}$$

Table 2

X Age (yrs)	Y Diameter of pupil at night (mm)
20	8.0
30	7.0
40	6.0
50	5.0
60	4.1
70	3.2
80	2.5

① Find the equation

② How big would your eyes be?



$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{7 - 3.2}{30 - 70} \approx -0.095$$

$$y = -0.095(x - 30) + 7$$

your eyes  $\approx 8.5$

5.7 #1-4 skip 2b)